



TASK ORDER (TO)

47QFCA19F0028

Travel Issuance and Overseas Citizen Assistance (TIOCA)

in support of:

Department of State (DOS)
Bureau of Consular Affairs (CA)
Office of Consular Systems and Technology (CST)



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C.1 BACKGROUND

The Department of State's (DOS's) Bureau of Consular Affairs (CA) is charged with protecting and assisting United States (U.S.) citizens abroad, issuing passports to U.S. citizens, and issuing immigrant and non-immigrant visas to foreign nationals according to the laws of the U.S. Government. The Office of Consular Systems and Technology (CST) within CA develops, deploys, and supports complex Information Technology (IT) systems and infrastructure that serve as the foundation of achieving CA's mission at domestic sites and overseas posts. CST delivers global technology solutions and provides comprehensive support to all customers and stakeholders.

Within CST, the Production Services Design and Development (PSDD) Division is charged with overseeing systems development and maintenance activities for citizen, non-citizen, and management systems. PSDD is also responsible for developing and maintaining production application software, business intelligence and reporting tools, and websites that support the mission of CA.

CA/CST develops, deploys, and supports complex IT solutions to automate the functions for the Department from concept to product, including research, design, development, testing, deployment, and production support. CA/CST also develops and implements standards for the Bureau's Enterprise Architecture (EA), maintains large-scale central data warehouses for real-time access to visa and passport records worldwide, monitors data quality, ensures system architecture meets current and projected requirements, and applies leading-edge technology solutions for systems' performance and security. CST strives to continuously provide innovative, global solutions that allow intuitive access to information services while balancing U.S. security and economic prosperity.

Travel Issuance and Overseas Citizen Assistance (TIOCA) is comprised of the following four functional programs, also referred to as the "TIOCA portfolio":

Passport Support Services (PSS):

Within CA, the Passport Services Directorate (CA/PPT) is responsible for the adjudication of U.S. citizenship and nationality, determination of entitlement, and issuance of passport documents to eligible U.S. citizens and nationals to facilitate trade, travel, and tourism. PSS systems provide technology supporting CA/PPT mission processes.

American Citizen Services (ACS):

Within CA, the Office of Overseas Citizen Services (CA/OCS) is responsible for providing a wide variety of services to American citizens residing or traveling abroad including, but not limited to, citizenship adjudication and passport issuance/renewal, Consular reports of birth or death abroad, travel registration services, welfare/whereabouts inquiries, services for citizens held in detention/arrest overseas, and financial transactions (e.g., loans, trusts, etc.). ACS systems provide technology supporting CA/OCS mission processes.

Non-Citizen Services (NCS):

Within CA, the Office of Visa Services (CA/VO) is responsible for the adjudication and issuance of visas to foreign nationals desiring to enter the U.S. as visitors or workers or to immigrate with

the intent of becoming permanent residents or citizens. NCS systems provide technology supporting CA/VO mission processes.

Consular Lookout and Support Systems (CLASS):

CLASS is used by DOS passport agencies, posts, and border inspection agencies to perform biographic matching on visa and passport applicants to identify individuals who may be ineligible for issuance or require other special action.

C.1.1 PURPOSE

The purpose of this TO is to obtain services for the PSS, ACS, NCS, and CLASS programs that include custom application software maintenance, Tier III support, and enhancements for legacy systems and tools. Enhancements will be limited to those required by law or executive mandates and to non-mandated enhancements for bug and security fixes, patches, and operational efficiencies. Enhancements include development and testing, as well as deployment preparation prior to deployment and verification that changes are fully functioning in the production environment as intended without adverse impact to the production environment.

An additional purpose of this TO is to provide linguistic expertise in the development and support of decision-support systems and name-matching/biographic matching algorithms, professional services to develop and manage application development of the name-matching systems, and systems architecture and maintenance support.

C.1.2 AGENCY MISSION

The mission of the U.S. DOS is to shape and sustain a peaceful, prosperous, just, and democratic world and foster conditions for stability and progress for the benefit of Americans and people everywhere. To achieve this DOS mission, CA actively pursues business, technology, and management enhancements and improvements.

C.2 SCOPE

CA/CST requires the contractor to provide maintenance and enhancement support. The scope of this TO includes, but is not limited to, the following products and services:

For the TIOCA Portfolio

- a. Program support.
- b. Project management.
- c. Production support.
- d. Tier III Help Desk support.
- e. Standard Operating Procedures (SOPs).
- f. Transition support from the incumbent contractor to the new contractor.
- g. Maintenance and enhancement support.
- h. Upgrades of selected applications to new application platform(s) or to other innovations.
- i. Software development and testing.
- j. Systems support training and knowledge transfer.
- k. Security.

1. Continuity and disaster recovery support.

For CLASS Program only

- m. Linguistic support and innovation.
- n. Sampling of linguistic data to ensure data quality.

The contractor shall be skilled in the databases, applications, and tools used by the TIOCA portfolio of systems.

CA/CST has adopted the Scaled Agile Framework (SAFe) approach for maintenance and engineering projects, when appropriate, and expects CA/CST services to flow using this approach. The contractor shall adhere to the CA/CST practices and guidelines accordingly.

Certain TIOCA portfolio legacy systems may be retired, in full or in part, during this TO period of performance. The TIOCA contractor shall maintain such systems up to the point of retirement. If CA/CST decides to retire any system, the TIOCA contractor shall supply documents and artifacts in accordance with CA/CST requirements. The contractor shall cooperate and coordinate with CA/CST in accounting for the full inventory of deliverables prior to completing any decommission process.

With respect to CLASS, the scope of this TO is for specialized linguistic computational support, application development, deployment, and database management. The contractor shall interact with DOS offices, other Government and non-government agencies, and other contractors as needed.

C.2.1 DEVELOPMENT, MAINTENANCE, TEST, AND PRODUCTION ENVIRONMENTS

The TIOCA contractor and IT systems that the TIOCA contractor uses shall cooperate and interoperate with other stakeholders that include CA/CST Government staff, the staff of other support contractors, and system users from various organizations.

The TIOCA contractor is responsible for software maintenance but not hardware maintenance. Maintenance of custom software includes re-design, revision and compilation of source code, configuration, debugging, testing, and quality control but does not include the development of new application systems. Maintenance of commercial software - such as operating systems, data base management systems, compilers, libraries, and other similar COTS tools - includes configuration and testing but not design or development.

Exogenous maintenance and enhancement requirements will arise over the life of the TO, e.g., new or revised guidelines or mandates from the Office of Management and Budget (OMB), Government Accountability Office (GAO), or other oversight organizations. As new applications systems undergo development, test, and eventual deployment into operations, the TIOCA contractor shall support the interoperability and compatibility of IT systems in the TIOCA portfolio with these new systems. Testing new application system modules shall sometimes require the TIOCA contractor's participation and support with respect to the TIOCA portfolio systems.

As new application functionality, systems, subsystems - such as ConsularOne¹ subsystems - are deployed, the TIOCA portfolio applications, including their APIs and other interfaces with the evolving ConsularOne constellation, will also require ongoing maintenance throughout the life of the TO.

DOS has contracted separately for the development of new application systems, including, principally, ConsularOne. The development, test, and use of these new application systems are outside the scope of the TIOCA TO. The TIOCA contractor shall decommission legacy application software systems in the TIOCA portfolio primarily due to their replacement by subsystems of the ConsularOne system, subsystems that are outside the scope of the TIOCA TO.

Maintenance, required enhancements, and decommissioning of TIOCA portfolio systems are the TIOCA contractor's responsibility. The contractor shall conduct all development and testing in the environment specified by the Government.

The TIOCA contractor is not responsible for production systems, except when the TIOCA contractor is required to resolve a Tier III Help Desk ticket that involves a production system. In that case, a solution developed by the TIOCA contractor will be installed on the production system by another party. Production systems run application software. Maintenance and enhancement of application software is the TIOCA contractor's responsibility.

The TIOCA TO scope includes, but is not limited to, the following:

- a. Maintenance of the Government-Furnished Property (GFP) system software configuration in compliance with all CA, Diplomatic Security (DS), Information Resources Management (IRM), and DOS requirements such as virus definition updates, site iPost scores, and security updates (excluding maintenance of production hardware).
- b. Operating system support to the GFP hardware located in the TIOCA contractor's secure facility, including tools and applications to maintain compatibility with the operating system when the OS is patched, reconfigured, or upgraded to a new version. Production hardware and the non-production environment (NPE) are managed outside the scope of the TIOCA TO. NPE and production hardware are *not* located at the TIOCA contractor's secure facility. The TIOCA contractor is not responsible for maintenance, patching and system administration for assets in the NPE boundary. However, the NPE is the environment where the TIOCA contractor will conduct all software development and testing activities. The TIOCA contractor will be a key user of the NPE
- c. Database management support related to contractor-site GFP and cooperative efforts with other TOs and projects that use or interoperate with databases that the TIOCA contractor hosts or supports.
- d. Platform support of contractor-site GFP. This includes platform upgrades of systems and application development systems. This also includes support to enable new or different types of computers and peripherals to be configured and tested prior to their deployment for production use. However, support of the production hardware itself is outside the scope of the TIOCA TO.

¹ Also known as "ConsularOne Applications and Data" (CA CAD) https://www.state.gov/documents/organization/283674.pdf

- e. Support of the DOS Independent Verification and Validation (IV&V) team, other contractors, and the Foreign Service Institute (FSI) to set up and configure applications and provide data and technical support as needed. This is applicable to the NPE but excludes management of all production hardware.
- f. Assessment and Authorization (A&A) activity support, including but not limited to review and updates to system security documents and diagrams and participation in meetings. The TIOCA contractor shall conduct their own application security vulnerability testing during development. The TIOCA contractor shall remediate security vulnerabilities identified from security tests from all sources. It excludes scanning of servers or workstations, submission of documentation to Information Assurance (IA), or IA's assessment.
- g. Site development documentation and code versioning support, including executables and source code, and check in of all files into the Configuration Control (CC) repository in accordance with CA/CST guidance. Excludes CC management and maintenance of the repository.

C.3 CURRENT IT AND NETWORK ENVIRONMENT

CA/CST IT systems are critical to the timely processing of passport and visa applications with the requisite level of accuracy and security that is essential to operating in the post-9/11 environment. Consular systems are installed at more than 300 consular processing facilities world-wide (embassies, consulates, domestic visa centers, or passport agencies, etc.), with approximately 7,000 consular staff users. Additionally, a total of approximately 11,000 DOS users and approximately 19,000 interagency users access these databases on a regular basis. They are central components to the core Departmental mission of protecting U.S. citizens while overseas, facilitating the legitimate travel of U.S. citizens, and ensuring proper U.S. entry of foreign nationals.

In addition, the contractor shall:

- a. Cooperate with inquiries by the DOS Office of the Inspector General (OIG) and the GAO.
- b. Manage the workload; allow for surges in activities and varying product priorities.
- c. Provide a standards-based, best practices approach to providing the services and support based on the Capability Maturity Model Integration (CMMI). The contractor shall maintain at least CMMI Level III DEV ratings for the duration of the TO.
- d. Provide technical expertise (e.g., via participation in meetings, document reviews, ad hoc requests for information related to the systems covered in the TIOCA TO, and by recommending innovative technologies and methods within the scope of the TO).

C.4 OBJECTIVE

The objective of the TIOCA TO is to support CA/CST's systems while continuously improving, coordinating with others, and demonstrating efficiencies.

CA/CST requires significant coordination and communication of plans and activities by the contractor with customers and other contractors working under other TOs. Work performed shall

be effectively coordinated and synchronized with work being performed under other TOs to ensure that customer requirements are met.

All hardware and software operated under the TO shall comply with CA/CST policies, directives, Standard Configuration Documents (SCDs), security configuration guidelines, and vendor-recommended patch levels. An inventory of all application software systems operated under the TO shall be maintained and include an accurate accounting of each system's compliance status with regard to operation, configuration, and security requirements.

C.5 TASKS

C.5.1 TASK 1 – PROVIDE PROJECT MANAGEMENT

The contractor shall provide project management support under this TO. This includes, but is not limited to, the management and oversight of all activities performed by contractor personnel, including subcontractors, to satisfy the requirements identified in this Performance Work Statement (PWS).

C.5.1.1 SUBTASK 1.1 – COORDINATE A PROJECT KICK-OFF MEETING

The contractor shall schedule, coordinate, and host a Project Kick-Off Meeting at a location approved by the Government (Section F, Deliverable 2). The meeting shall provide an introduction between contractor and Government personnel who shall be involved with the TO. The meeting shall provide the opportunity to discuss technical, management, and security issues, and travel authorization and reporting procedures. At a minimum, the attendees shall include Key contractor Personnel, representatives from the directorates, other relevant Government personnel, the FEDSIM COR, and the CA/CST Government Technical Managers (GTMs).

At least three days prior to the Kick-Off Meeting, the contractor shall provide a Kick-Off Meeting Agenda (Section F, Deliverable 1) for review and approval by the FEDSIM COR and the GTMs prior to finalizing. The agenda shall include, at a minimum, the following topics/deliverables:

- a. Points of Contact (POCs) for all parties.
- b. Personnel discussion (i.e., roles, responsibilities, and lines of communication between contractor and Government).
- c. Staffing Plan and status.
- d. Transition-In Plan (Section F, Deliverable 16) and discussion.
- e. DOS IT requirements (OpenNet, Government-Furnished IT, etc.)
- f. Security discussion and requirements (e.g., building access, badges, Common Access Cards (CACs)).
- g. Invoicing requirements.
- h. Draft Project Management Plan (PMP) (Section F, Deliverable 8).
- i. Updated Baseline Quality Management Plan (QMP) (Section F, Deliverable 13).
- j. Earned Value Management (EVM) Plan.
- k. Formal security briefing. (The Government will conduct a formal security briefing for the contractor (Section H.4.k). The purpose of the briefing will be to bring to the contractor's

attention the governing documents and directives regarding all security considerations in the staffing of the project, site access, software and hardware functions, document control, and DOS procedures.)

The Government will provide the contractor with the number of Government participants for the Kick-Off Meeting, and the contractor shall provide sufficient copies of the presentation for all present.

The contractor shall provide a Kick-Off Meeting Minutes Report (Section F, Deliverable 3) documenting the Kick-Off Meeting discussion and capturing any action items.

C.5.1.2 SUBTASK 1.2 – PREPARE A CONTRACT STATUS REPORT (CSR)

The contractor shall provide a monthly CSR that includes the information depicted in Section J, Attachment A6 (Section F, Deliverable 5).

C.5.1.3 SUBTASK 1.3 – CONVENE CSR STATUS MEETINGS

The contractor Program Manager (PM) shall convene a monthly CSR Status Meeting with the CA/CST GTM, FEDSIM COR, and other Government stakeholders (Section F, Deliverable 6), or more frequently when events so warrant. The purpose of this meeting is to ensure all stakeholders are informed of the monthly activities and the CSR, provide opportunities to identify other activities, establish priorities, and coordinate resolution of identified problems or opportunities. The contractor PM shall provide minutes of these meetings, including attendance, issues discussed, decisions made, and action items assigned, to the GTMs and FEDSIM COR (Section F, Deliverable 7).

C.5.1.4 SUBTASK 1.4 – PROVIDE ALTERNATIVE EARNED VALUE MANAGEMENT (EVM) METRICS AND CALCULATION SUPPORT

The contractor shall employ and report on EVM type metrics and calculations in the management of this TO as described in this section of the TO. The Government expects the contractor to employ innovation in its proposed support for this subtask and TO in accordance with best industry practices. The following information shall be included in the Alternative EVM Report (Section F, Deliverable 12) as outlined in the Project Management Plan (PMP).

- a. Planned Work (PW)
- b. Actual Work (AW)
- c. Actual Cost (AC)
- d. Planned Cost (PC)
- e. Burndown Chart
- f. A variance analysis that includes the following:
 - 1. Cost Variance (CV) = (PC AC)
 - 2. Cost Variance $\% = (CV/PC \times 100\%)$
 - 3. Cost Performance Index (CPI) = (PC/AC)
 - 4. Schedule Variance (SV) = (AW-PW)
 - 5. Schedule Variance $\% = (SV/PW \times 100\%)$
 - 6. Schedule Performance Index (SPI) = (AW/PW)

- f. Explain all variances greater than ten percent.
- g. Explain, based on work accomplished as of the date of the report, whether the performance goals will be achieved.
- h. Discuss the corrective actions that will be taken to correct the variances, the risk associated with the actions.

C.5.1.5 SUBTASK 1.5 – PREPARE AND UPDATE THE PROJECT MANAGEMENT PLAN (PMP)

The contractor shall document all support requirements in a PMP. The contractor shall provide the Government with a draft PMP (Section F, Deliverable 8) on which the Government will make comments. The final PMP (Section F, Deliverable 9) shall incorporate the Government's comments.

The PMP shall:

- a. Describe the proposed management approach.
- b. Contain the location where the SOPs will be maintained per the SOP Management Plan (Section F, Deliverable 23).
- c. Include milestones, tasks, and subtasks required in this TO.
- d. Provide an overall Work Breakdown Structure (WBS) with a minimum of three levels and associated responsibilities and partnerships between Government organizations.
- e. Describe in detail the contractor's approach to risk management under this TO.
- f. Describe in detail the contractor's approach to communications, including processes, procedures, communication approach, and other rules of engagement between the contractor and the Government.
- g. Plan for compliance with A&A, Authority to Operate, and other security requirements.
- h. Include the contractor's updated QMP (Section F, Deliverable 13), see C.5.1.5.1., and the Alternative EVM Metrics and Calculations Support Plan.
- i. Conform to the Project Management Body of Knowledge (PMBOK).

The contractor shall provide project schedules to be integrated with CA/CST's Integrated Master Schedule (IMS). IMS aggregates individual schedule inputs from multiple projects to aid sequencing project tasks in an optimal order to meet CA/CST's overall priorities. The IMS is a vehicle for analysis and management of dependencies between projects, resource utilization, identification of resource constraints, and prioritization of activities across the enterprise.

Management of the CST IMS is not within the scope of this TO. Each project schedule will be maintained and updated to reflect progress after each FEDSIM COR and CA/CST GTM status update, review, or milestone change.

The PMP is an evolutionary document that is to be updated annually at a minimum (Section F, Deliverable 10). The contractor shall work from the latest Government-approved version of the PMP.

C.5.1.5.1 SUBTASK 1.5.1 – PROVIDE QUALITY MANAGEMENT

The contractor shall identify and implement its approach for providing and ensuring quality throughout its solution to meet the requirements of the TO. The contractor's QMP shall describe the application of the appropriate methodology (e.g., Quality Control (QC) and/or Quality Assurance (QA)) for accomplishing TO performance expectations and objectives. The QMP shall describe how the appropriate methodology integrates with the Government's requirements.

Offerors shall submit the draft QMP with its proposal. The contractor shall update the QMP and submit it with the PMP at the Kick-Off Meeting (Section F, Deliverable 13). The Government will provide comments on the updated QMP. The Contractor shall incorporate the Government's comments and provide the Final QMP (Section F, Deliverable 14). The contractor shall periodically update the QMP (Section F, Deliverable 15) as changes in program processes are identified.

C.5.1.6 SUBTASK 1.6 – PREPARE TRIP REPORTS

The Government will identify the need for a Trip Report when the request for travel is submitted (Section F, Deliverable 11). The contractor shall keep a summary of all long-distance travel including, but not limited to, the name of the employee, location of travel, duration of trip, and POC at travel location. Trip reports shall also contain Government approval authority, total cost of the trip, a detailed description of the purpose of the trip, and any knowledge gained. At a minimum, trip reports shall be prepared with the information provided in Section J, Attachment A8.

C.5.1.7 SUBTASK 1.7 – TRANSITION-IN

The contractor shall update the draft Transition-In Plan (Section F, Deliverable 16) provided with its proposal and provide a final Transition-In Plan (Section F, Deliverable 17) as required in Section F. The contractor shall ensure that there will be minimal disruption to vital Government business and no service degradation during and after transition. The contractor shall implement its Transition-In Plan at Project Start, and *all* transition activities shall be completed 120 calendar days after approval of the final Transition-In Plan (Section F, Deliverable 17).

C.5.1.7.1 WORK AND NETWORK ACCESS DURING TRANSITION-IN

The Transition-In period will allow most technical team members on the incoming TO staff to obtain badges and RSA tokens and connect to OpenNet, the Department's non-classified information system.

The Global OpenNet (GO) network, accessed via RSA token, provides web-based access to OpenNet and OpenNet-based systems (such as most of the Microsoft Office Suite, including Outlook) and will allow some technical work to be done for production support and limited development work via the NPE. However, access to databases for production support is not available through GO; the contractor must have a direct OpenNet connection.

Direct OpenNet connection is provided via a dedicated line or bandwidth and network drops. This requires an inspection of the premises and approval by Diplomatic Security (DS) before OpenNet connections can be installed. (See Section H.4.2 and https://go.state.gov regarding OpenNet.)

Pending a direct OpenNet connection, no technical work will be possible without GO and RSA tokens. Thus, remote access for teleworking or after hours support via GO will be limited during Transition-In.

The initial installation of GFP, including specialized printers, will be completed during the Transition-In.

C.5.1.8 SUBTASK 1.8 – TRANSITION-OUT

The contractor shall provide Transition-Out support when required by the Government. The Transition-Out Plan shall facilitate a smooth transition from the incumbent to incoming contractor/Government personnel at the expiration of the TO. The contractor shall provide a draft Transition-Out Plan within eight months of Project Start (PS) (Section F, Deliverable 18). The Government will work with the contractor to finalize the Transition-Out Plan (Section F, Deliverable 18). At a minimum, the contractor shall review and update this Plan annually (Section F, Deliverable 19). Additionally, the Transition-Out Plan at least quarterly during the final Option Period (Section F, Deliverable 20).

The Transition-Out Plan shall identify how the contractor coordinates with the incoming contractor and/or Government personnel to transfer knowledge regarding the following:

- a. Project management processes.
- b. POCs.
- c. Location of technical and project management documentation.
- d. Status of ongoing technical initiatives.
- e. Appropriate contractor-to-contractor coordination to ensure a smooth transition.
- f. Transition of Key Personnel.
- g. Schedules and milestones.
- h. Actions required of the Government.

The contractor shall maintain effective communication with the incoming contractor/ Government personnel for the period of the transition via weekly status meetings and as often as necessary to ensure a successful transition-out.

The contractor shall implement its Transition-Out Plan NLT six months prior to TO expiration.

C.5.1.9 SUBTASK 1.9 – PREPARE A QUARTERLY SPEND PLAN

The contractor shall submit and maintain a Quarterly Spend Plan (Section F, Deliverable 21) that reflects the projected spending for the upcoming 12 months. This shall include a detailed break out of the following:

- a. Task
- b. CLIN Number
- c. Contractor Function/Role
- d. Employee Status (exempt, non-exempt, subcontractor)
- e. Employee Name
- f. Alliant 2 Labor Category

- g. Subcontractor(s) Company Name(s), if applicable
- h. Hours and Dollars per contractor function/role for each option period and month within the option period
- i. Rate information (i.e., burden and unburdened) for each respective plan month
- j. Totals of hours and costs by CLIN and Task Number
- k. Non-Labor Costs
- 1. Grand Total hours/Costs by Task Number

C.5.1.10 SUBTASK 1.10 – PREPARE A WEEKLY ACTIVITY REPORT

The contractor shall prepare and submit a Weekly Activity Report (Section F, Deliverable 4) in accordance with the provided template, Section J, Attachment A7, and addressing all four TIOCA portfolio programs and systems.

C.5.2 TASK 2 – PRODUCTION SUPPORT

Task 2 Production Support includes support for all TIOCA portfolio systems.

C.5.2.1 TASK 2.1 – TIER III HELP DESK SUPPORT

The contractor shall provide Tier III Help Desk support for the TIOCA portfolio systems in accordance with performance standards (Section J, Attachments A4 and A5).

The contractor shall:

- a. Troubleshoot system problems that cannot be resolved by the on-site systems management personnel or end-user support personnel, including the Tier I and Tier II Help Desks, which are provided by resources other than the TIOCA contractor.
- b. Accept tickets via the CA/CST ticket system, email, or phone and open a ticket if one does not exist.
- c. Support critical and high tickets/problems by being available on-call during non-business hours 24 x 7 and provide a telephone number. All problems reported via tickets will be resolved within the established standards.
- d. Use the CA/CST ticket system to manage tickets and to calculate Help Desk metrics.
- e. Provide SOPs and training staff to complete handoff of routine production support issues.

The contractor's support team shall be available on-call during non-business hours and weekends (24 hours per day, seven days per week (24 x 7)).

C.5.2.2 TASK 2.2 – APPLICATION ADMINISTRATION – PRODUCTION CONTROL

The contractor shall provide production support for the four programs and their subsystems as follows:

- a. Coordinate with the Configuration Management (CM) and Government deployment team to move all documents, source code, etc. to the production environment.
- b. Provide a Production Metrics Report that provides incident metrics and PMC Trends for the TIOCA program and all missions (Section F, Deliverable 24).
- c. Provide production control schedules in coordination with CA Service Operations.

- d. Create scripts to execute batch processes.
- e. Create operational memos and job requests.
- f. Support the creation of the Release Task List (RTL).
- g. Review each release package for completeness before submission for formal acceptance or rejection by the Government.
- h. Deposit all CM products and intellectual knowledge in the central CA/CST CM repository.
- i. Stage and support the implementation of software releases.
- j. Manage security and IA compliance (C.5.2.5.1, C.5.2.5.2).
- k. Perform patch management and security update operations support (C.5.2.5.3, C.5.2.5.4, C.5.2.5.5).

C.5.2.3 SUBTASK 2.3 – STANDARD OPERATING PROCEDURES (SOPs)

Based on best practices, lessons learned, and/or new innovations, the contractor shall:

- a. Develop new SOPs, including SOPs for frequently repeated processes (such as onboarding steps and requests for access or server setup).
- b. Review and update existing SOPs at a minimum annually or as needed.
- c. Maintain and manage the SOP Library in Government-sponsored repositories (e.g., on OpenNet).
- d. Maintain version control.
- e. Demonstrate continued, routine use of SOPs in performing work.
- f. Ensure operational procedures are documented and approved and user manuals are complete.
- g. Document unit test plans and results.

SOP development and revision is applicable to all four TIOCA portfolio programs. The contractor shall outline the SOP maintenance and management, to include any reporting/metric needs, as described in this section in the SOP Management Plan (Section F, Deliverable 23).

C.5.2.4 SUBTASK 2.4 – STREAMLINE OPERATIONS AND MINIMIZE OPERATIONAL COSTS

The contractor shall recommend approaches to the Government for meeting all contract requirements. These approaches are to maximize efficiency, streamline operations, improve results, strengthen security, and minimize operational costs (all four programs and systems).

Streamlining approaches may include, but are not limited to:

- a. Revised, innovative implementation of industry standard frameworks such as Information Technology Infrastructure Library (ITIL), CMMI, and PMBOK, including migration to new versions as they arise.
- b. Revision of existing SOPs (e.g., revisions to the Legacy System Enhancement Process); ongoing revision to the CA/CST Scaled Agile Process; generate new version(s) of the Application and Coding Testing Standards generally, new Code Quality (CQ) analyses or

- Continuous Integration and Continuous Delivery (CI/CD) tools and processes within that standard.
- c. New versions, documentation, and/or revision of other existing standards, analyses, or processes to reflect evolving industry practice, streamline operations, improve results, strengthen security, or minimize costs.

C.5.2.5 SUBTASK 2.5 – SECURITY TASKS

C.5.2.5.1 SECURITY OPERATIONS

The contractor shall comply with Departmental security policies and procedures, as outlined in the Foreign Affairs Manual (FAM) and the Foreign Affairs Handbook (FAH), including, but not limited to, 12 FAM, 12 FAH, and 5 FAH (reference Web site: https://fam.state.gov/default.aspx). The contractor shall manage security and IA compliance of all applications under the TIOCA TO, including relevant software upgrades for security compliance and use in production systems. In addition, the contractor shall be responsible for maintaining onsite GFP in accordance with Departmental security policies and procedures. Overall management of the CST Information Systems Security and Security Operations program is outside the scope of the TIOCA TO.

The contractor shall fully cooperate with DOS audits, reviews, evaluations, tests, and assessments of contractor systems, processes, and facilities. The contractor shall comply with Federal security controls including, but not limited to, those specified in National Institute of Standards and Technology (NIST) Special Publication (SP) 800-53 Rev 4 or later. The contractor shall be responsible for keeping up to date with security controls relevant to the TIOCA portfolio applications.

The contractor shall provide support as requested by the Government when security tests are conducted by another organization to validate that required security controls are properly implemented, operate as intended, and produce the desired outcome. The TIOCA contractor shall remediate security vulnerabilities identified from security tests from all sources and shall assist in verification testing as requested. The contractor shall perform its own security testing as part of QA/QC while working on patch releases, enhancements, or configuration changes for the applications falling under the TIOCA portfolio, to ensure additional security vulnerabilities are not introduced in these products. (Please also reference C.5.3 and C.5.4.)

C.5.2.5.2 INFORMATION ASSURANCE (IA) AND COMPLIANCE SUPPORT

The contractor shall perform IA and compliance support services to maintain production system security posture, which includes engineering, implementing, operating, and monitoring. As noted above, another organization is responsible for the overall management of the Information System Security Office and the Security Operations program. Support includes implementing remediation actions as required, and providing timely and accurate input to documentation. Examples of support include but are not limited to:

- a. Support the A&A process.
- b. Security findings and remediation from all sources.
- c. Security findings management and status reporting.
- d. iPost findings and remediation, See

https://2009-2017.state.gov/documents/organization/156865.pdf.

- e. Group Policy Object (GPO) compliance.
- f. Enclaving/network segregation.

The contractor shall maintain, manage, and report on all security findings falling under the scope of the TIOCA program, including engineering mitigations for findings from all sources as requested by the Government. The contractor shall maintain acceptable levels of security finding grade(s):

- a. The contractor shall remediate and close open security finding items as agreed upon in the timeline listed in the Plan of Actions and Milestones (POA&M).
- b. The contractor shall update open security finding items periodically as needed.

C.5.2.5.3 SECURITY OPERATIONS SUPPORT

The contractor shall support security operations by closely coordinating with the ISSO as well as the Security Operations organization, which are principally responsible for operational security administration. The contractor shall provide requirements for and assist in the configuration of CST's Security Information and Event Management (SIEM) system, as it pertains to the management of TIOCA portfolio applications. The contractor shall support responses and investigations into events and incidents as requested by the Government.

C.5.2.5.4 PATCH AND SECURITY UPDATE

The contractor shall perform patch management and security update operations support to maintain operating environments for their Organizational Units (OUs), which shall be comprised of GFP at the contractor facility. Responsibilities include, but are not limited to:

- a. Providing oversight and periodic review of the patch management process and procedures at the TIOCA contractor facility.
- b. Complying with required processes and procedures so that patches are successfully applied in TIOCA contractor OUs and are reported accurately.
- c. Performing patch and security update deployment testing upon request.
- d. Monitoring, reporting, and remediating all deployment failures within 24 hours.
- e. Monitoring and reporting patch and security update compliance for all CA systems weekly.
- f. Providing weekly, monthly, and/or as requested patch and security update status reports.
- g. Communicating with all appropriate parties.
- h. Complying with DOS rules and regulations governing patch and security update operations.
- i. Maintaining an iPost score at or below the acceptable levels, as defined by DOS, for sites and operating environments maintained by the contractor.
- j. Complying with DOS patch timeframe requirements in accordance with relevant Notification Bulletins.

C.5.2.5.5 CONTINUITY AND DISASTER RECOVERY

The contractor shall incorporate all aspects of the TIOCA portfolio systems into CST's Contingency of Operations (COOP)/Disaster Recovery Plan(s). The overall management of COOP/Disaster Recovery across CST is outside the responsibility of the TIOCA contractor. However, the contractor shall be prepared to provide input into planning and testing as it pertains to TIOCA portfolio systems, as well as coordinating with the Government, when significant changes to the architecture occur. Responsibilities include but are not limited to:

- a. Support facility contingency planning, disaster recovery, and testing, as needed.
- b. Continually provide accurate and up to date input for support and continuity architecture documents and disaster recovery program documentation.
- c. Continually provide accurate and up to date input for disaster recovery program documentation.
- d. Continually provide accurate and up to date input for data recovery and COOP plans with standard failure detection and recovery procedures.
- e. Continually provide accurate and up to date input for the CA/CST Redundancy Chart that tracks recovery options for each application, database and service managed by CA/CST.
- f. Participate in disaster recovery tests across the enterprise and documenting results for TIOCA portfolio systems.
- g. Coordinate with appropriate CST contractors and the Government to ensure disaster recovery capabilities are maintained as changes are made to systems and environments.
- h. Support system and facility contingency planning, disaster recovery, and testing, as needed to support COOP/Disaster Recovery Planning (Note: providing a disaster recovery site is outside the scope of this TO).

C.5.2.6 SUBTASK 2.6 - TIOCA PORTFOLIO APPLICATIONS TRAINING

The contractor shall provide application-specific training support. This shall include briefings and demonstrations (Section F, Deliverable 33), including training other contractor and Government staff on how to conduct training of others (i.e., train the trainer). The contractor shall:

- a. Support consular applications training courses by providing input into training materials as requested by CST. The contractor shall review and edit the training materials developed by the Training Team (not the TIOCA contractor). Training will be located in the Washington D.C. area.
- b. Support the Department's Enterprise Training Environment (ETE) by verifying that the TIOCA portfolio applications are fully functioning, up-to-date, and operational in the training environment. Another contractor is responsible for the overall maintenance of the ETE environment.

C.5.3 TASK 3 – TIOCA PORTFOLIO SOFTWARE MAINTENANCE

CA/CST requires application support and ongoing software maintenance for TIOCA portfolio applications and systems as well as deployment and transition support for system or software enhancements, upgrades, or architecture changes. The contractor shall provide a production

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deployment report (Section F, Deliverable 25) that will provide for each mission area, name of release deployed to production, features/functionality delivered and value, delivered on-time or delayed, and summary of any issues encountered and remediation efforts. Maintenance includes technical support, upgrading platforms and underlying software frameworks and component libraries, ensuring compatibility with upgraded operating systems, software maintenance, bug fixes and minor releases, training and documentation support, Tier III support, and emergency support as follows in the list below. Note, the TIOCA contractor will develop the application platform upgrade solution and lead and facilitate the deployment, but the upgrade will in most cases be executed by another contractor.

The contractor shall:

- a. Maintain and manage distributed system applications' software, including software development of changes as mandated and approved.
- b. Coordinate with CA/CST's Enterprise Architecture team, the Chief Engineer, and the data engineering teams to ensure compliance with the CA/CST target architecture.
- c. Maintain and/or integrate web services using industry best practices and CA/CST-approved web service policies and guidelines.
- d. Consult with other technical stakeholder teams (e.g., visa, passport, ConsularOne, and databases).
- e. Provide support during installations at operational sites, ensure that operational procedures are documented and approved user manuals are complete, unit test plans and results are documented, and all training is delivered prior to turning over the system for operation.
- f. Verify system reliability, availability, and maintainability. The contractor shall obtain reliability and availability data from the software vendors for a field-proven system; the contractor shall obtain these figures from an operational system.
- g. Provide software development lifecycle documents and other intellectual property.
- h. Draft features, user stories, or Change Control Requests (CCRs) based on identified system change needs and/or as needed.
- i. Analyze Test Incident Reports (TIR) as problems are identified and provide recommendations to the COR and GTMs.
- j. Provide technical support for the production environment in accordance with CCR guidelines.
- k. Analyze maintenance requirements, mandates, and other changes, to include level of effort in terms of time (hours, days, weeks, etc.), duration and costs.
- l. Implement software releases in accordance with CA/CST lifecycle governance processes as identified.
- m. Create, update, maintain, and use a knowledge database (currently on the Remedy platform) to ensure consistent, repeatable, and efficient response to support CA requests and allow end-users direct access for problem resolution.

C.5.3.1 SUBTASK 3.1 – TIOCA PORTFOLIO QUALITY ASSURANCE (QA) TESTING

The contractor is required to test any release for QA/QC to ensure that all functionality performs as specified in the requirements and that security vulnerabilities are not introduced in these products. The contractor shall also conduct thorough QA testing to ensure that rounds of IV&V testing and IV&V-generated functional and security defects are minimized as much as possible and that new issues and vulnerabilities are not introduced into production. The performance and functionality of the systems are the responsibility of the contractor. The contractor shall prevent or overcome any problems in production that arise due to differences in the QA or IV&V environments.

The contractor shall work with other stakeholder teams to ensure that testing by the IV&V team is well coordinated and that testing schedules are kept on track as much as possible. This includes support for the IV&V environment set up and coordinating/collaborating with the Database Engineering Data Management (DEDM) team on data, scripts, and deployments.

The contractor shall:

- a. Perform QA testing prior to IV&V testing.
- b. Perform integration testing to ensure all system components work successfully together.
- c. Automate testing and deployment processes to the extent possible, as approved by the Government.
- d. Provide continuous regression testing in all environments and provide engineering and solutions to ensure the system functions in production.
- e. Provide support of IV&V testing and address errors identified by IV&V.
- f. Work with the Government to establish virtual development and testing environments on the NPE.
- g. Perform prototyping as appropriate.

C.5.3.2 SUBTASK 3.2 – NON-EMERGENCY PATCH RELEASES

The contractor shall implement non-emergency patch and maintenance releases that include bug fixes, security and performance issues, and other modifications. The contractor shall work with the release management process established by CA/CST Service Strategy and Portfolio Management (SSPM) to schedule patch and maintenance releases to maximize efficiencies and minimize risks, unless an urgent fix is required by the Government. The contractor shall ensure that these releases are fully functioning in the production environment as intended, meeting the release's acceptance criteria without adverse impact to the production environment.

The contractor shall deliver relevant system and implementation documentation for patch and maintenance releases as defined in the SSPM project tailoring plan. Generally, updates to requirements, training, and system documents are required for functionality changes.

Implementation documentation is required for all releases and includes release notes, configuration requirements and deployment instructions. The contractor shall ensure that the customer is included in the release process and scheduled reviews. The contractor supports the following release activities:

- a. Provide patch/maintenance releases for bug fixes, security patches, and/or minor system maintenance for CA/CST systems and applications that have been fully tested and ready for production.
- b. Test hardware and peripheral configurations to ensure compatibility and interoperability.
- c. Perform routine maintenance to keep all existing systems fully functional as long as they are needed.
- d. Deliver software packages including documentation to CM; assist CM in deploying application in the NPE and complete contractor integration and configuration testing in this production-like environment.
- e. Fix performance, security, and code issues identified by the Government in NPE. The Government plans to use static code analysis to identify issues and will work with the contractor to determine required fixes before moving to IV&V.
- f. Deliver systems and integrated tested software and documentation via CM to IV&V and support (e.g., bug fixes) independent testing as needed.
- g. Conduct deployment activities for release of software to the field including installation on new and replaced or refreshed hardware. The TIOCA contractor shall develop the application patch release and installation guide. The TIOCA contractor will participate in the deployment meetings and perform any necessary smoke testing after the upgrade is completed by another contractor team.
- h. Coordinate deployment activities closely with other teams as needed.
- i. Draft CCRs based on identified system change needs.
- j. Improve existing software to enhance performance.
- k. Deliver contractor's internal QC/QA test results for releases.
- 1. Deliver implementation documentation for releases.
- m. Manage and maintain schedule, scope, risks, issues, resources, and communication channels for releases.
- n. Maintain offsite (contractor's secure facility) development and integrated testing environments.
- o. Comply with CA/CST project management policies.
- p. Support CA/CST configuration management process including using the configuration management repository for code, executables, and document management.
- q. Participate in release meetings and collaborate with others to ensure successful operations and implementations.

C.5.3.3 SUBTASK 3.3 – TIOCA PORTFOLIO EMERGENCY PATCH RELEASES

The contractor shall implement emergency patches in coordination with the GTMs to remediate any CA/CST system or application security vulnerabilities, bug fixes, or correct system performance in an expedited manner. The contractor shall ensure that these releases are fully functioning in the production environment as intended, meeting the release's acceptance criteria, without adverse impact to the production environment.

The contractor shall perform emergency patch release activities in accordance with performance standards (Section J, Attachments A4 and A5). When an emergency patch is implemented, the

patch shall be documented to the extent required by CST guidelines. The contractor shall deliver relevant system and implementation documentation for patch releases. Implementation documentation includes release notes, configuration requirements, and deployment instructions.

C.5.4 TASK 4 – TIOCA PORTFOLIO SOFTWARE ENHANCEMENT

The contractor shall provide software analysis, design, and enhancement support for components that may be required during the life of the TO to support the general TIOCA portfolio business area. The contractor is required to document enhancement requirements in coordination with the Government. The contractor shall ensure that these releases are fully functioning in the production environment as intended, meeting the release's acceptance criteria without adverse impact to the production environment. The contractor shall provide a production deployment report (Section F, Deliverable 25) that will provide for each mission area, name of release deployed to production, features/functionality delivered and value, delivered on-time or delayed, and summary of any issues encountered and remediation efforts. New components may be required as a result of initiatives with other agencies, congressional mandates, increased data sharing and data gathering with the general public, migration of consular automated systems to new development and/or operating platforms, remediation of security vulnerabilities, and to maintain alignment with the CA/CST EA. Software enhancements and modernization include, but are not limited to, the following:

- a. Interface existing and legacy CA/CST systems to future CA/CST EA driven by legislation or as needed.
- b. Develop new functionality or components for existing TIOCA portfolio systems or to replace/improve old functionality.
- c. Develop new enhancement releases for existing TIOCA portfolio systems.
- d. Migration of existing applications to new technical platform(s).
- e. Perform data migration and decommission of legacy systems.
- f. Provide transition support to migrate CA Extensible Markup Language (XML) interfaces to CA/CS National Information Exchange Model (NIEM) consistent interfaces or suitable alternative as needed.

All enhancements are subject to the Enhancement Request Process. The contractor may recommend revisions to the enhancement process (or other processes) (Section C.5.2.4).

Implementation of software releases shall be executed in accordance with CA/CST lifecycle governance processes.

C.5.5 TASK 5 – CLASS SUPPORT

The contractor shall provide specialized linguistic computational support and application development and support the deployment and database management teams. The contractor shall interact with DOS offices, other Government and non-government agencies, and other contractors as needed.

C.5.5.1 SUBTASK 5.1 – SPECIALIZED LINGUISTICS SUPPORT

The contractor shall provide specialized linguistics support, described below, in the following areas:

- a. Name-Matching Algorithm Management
- b. Query Results Accuracy Improvement
- c. CLASS Training
- d. Data Maintenance, Management, and Analysis

C.5.5.1.1 NAME-MATCHING ALGORITHM MANAGEMENT

The contractor shall provide linguists for operational systems support and to support application teams' ongoing software maintenance for name-checking algorithms, as well as deployment and transition support to future name-checking algorithms to be employed within CLASS (Section F, Deliverable 30 and 31). The contractor shall provide continuity in processes, activities, tools, and standards involved with operating, administering, managing, and maintaining name-checking algorithms. The contractor shall also provide linguistic support for the operation, maintenance, and enhancement of the name-checking systems. At a minimum, the contractor shall demonstrate a full understanding of the purposes of and approaches to name-check processing, as may be employed or needed by the DOS. The contractor shall:

- a. Perform linguistic analysis of visa and passport message traffic relating to cultural name structures and name variants, review the "lookout" database to ensure correct system operation, and research new linguistic techniques for potential use in name-check processing. The contractor shall develop and field innovative, enhanced name-check and computational linguistics CLASS system algorithms and processes derived from academic, industrial, or other sources in the field.
- b. Maintain Name-Checking Algorithm documentation and provide a report (Section F, Deliverable 30) associated with CLASS, provide updates to the FAM, and provide input to the business offices for All Diplomatic and Consular Posts (ALDAC) cables.
- c. Recommend, and if authorized, implement modifications to tuning parameters to correct problems or enhance the efficacy of the name-checking process.
- d. Modify current linguistic algorithms and, as appropriate, develop new linguistic algorithms for the name-checking systems in order to improve accuracy of query results and provide a namecheck tuning report (Section F, Deliverable 31).
- e. Support functional testing and QC activities.
- f. Create a deployment and transition plan for new cultural, linguistic, or other algorithms. (Note: This requirement is driven by customer needs. It is estimated that there may be one over the whole life of the TO.)
- g. Provide expert linguistic representation for CA at interagency and international meetings and activities.
- h. Provide research support and maintain awareness of internal and external research efforts related to the name-check systems, including examination of name-check output reports.

C.5.5.1.2 OUERY RESULTS ACCURACY IMPROVEMENT

The contractor shall design and implement next generation CLASS functionality that increases the accuracy and usefulness of query results. At a minimum, the contractor shall evaluate and, if

appropriate, recommend the following for incorporation into the CLASS Improvement Roadmap (Section F, Deliverable 32) for eventual implementation in CLASS:

- a. Alternatives to rules-based data quality analysis and queries.
- b. Original language searches and transition to Unicode.
- c. Phonetic name searches.
- d. Integration of additional culturally relevant information.
- e. Additional integration of language family and subfamily to determine data relevance and importance.
- f. Additional data fields or variables in improving query accuracy such as networks of names (known associates, etc.) or allowing for Also-Known-As (AKA) on fields other than name (e.g., Date of Birth).
- g. Enhancements and innovations for prioritization of responses by severity or level of importance. This may include multiple severity factors that differ depending on the user base performing the query as well as significance of the query results (e.g., Category 1 versus administrative refusal).
- h. Enhancements and innovations for prioritization of responses by the relevance, variations, and weighting of biographic information (Place of Birth, Date of Birth, Name, etc.).
- i. Additional integration of the most appropriate applications of onomastics research and scholarship in the development and enhancement of linguistic algorithms (Section F, Deliverable 31).
- j. Systems which use logic similar to CLASS but determine near-match situations regarding addresses, text, and/or phone numbers.

C.5.5.1.3 CLASS TRAINING

The contractor shall provide CLASS-specific training, briefings, and demonstrations, and shall provide expert linguistic support for the development of other training courses (Section F, Deliverable 33). This includes training Government staff how to conduct training of others (i.e., train-the-trainer).

The contractor shall:

- a. Support the FSI's Basic Consular Course (CONGEN) development by reviewing the FSI course materials and providing updated CLASS content input/material on any changes to the environment as needed. This course is to train Junior Officers on how to use CLASS. FSI will develop the materials and teach the course.
- b. Support the CLASS training courses other than CONGEN by maintaining, revising, and developing training materials and by providing the half-day training. The contractor shall submit training materials to the CST training team for review/concurrence. Training shall be located at FSI in the Washington, D.C. area approximately four times per year.

C.5.5.1.4 DATA MAINTENANCE, MANAGEMENT, AND ANALYSIS

The contractor shall maintain, manage, and analyze CLASS name-matching data. The contractor shall support ongoing data quality improvement activities and perform advanced mathematical and statistical data analyses to support specific Governmental initiatives.

Data Analysis

The contractor shall provide mathematical and statistical data analysis on all data processed by the CLASS name-check system. The contractor shall provide new and innovative mathematical modeling techniques to support various counter-terrorist and counter-fraud activities.

The contractor's data analysis shall:

- a. Identify subtle patterns that indicate suspicious behavior warranting further investigation.
- b. Determine what is expected in normal circumstances as compared to known fraudulent cases.
- c. Detect fraud both in real time and for forensic determination.
- d. Apply knowledge of CA systems, processes, and processing times to understand the significance of the results of each mathematical and statistical data analysis.

Data Quality and Management

The contractor shall provide data quality and management support of all data sources that provide input to CLASS.

The contractor shall:

- a. Analyze data discrepancies and name-check inconsistencies, identify potential problems, and recommend improvements. These shall be included in the Weekly Activity Report (WAR) (Section F, Deliverable 4) (Section J, Attachment A7).
- b. Document all name-check and data comparison findings and provide recommendations for name-check changes (Section F, Deliverable 4).
- c. Prepare and disseminate statistical and data reports (Section F, Deliverable 4).
- d. Conduct regular Data Management Group meetings among representatives of the Visa Office, Passport Office, and others to discuss data-related issues impacting all distributed travel document issuance systems.